Description and
Operating Instructions

ACCUVAC Basic

Aspirator

WM 10700

WM 10709

WEINMANN

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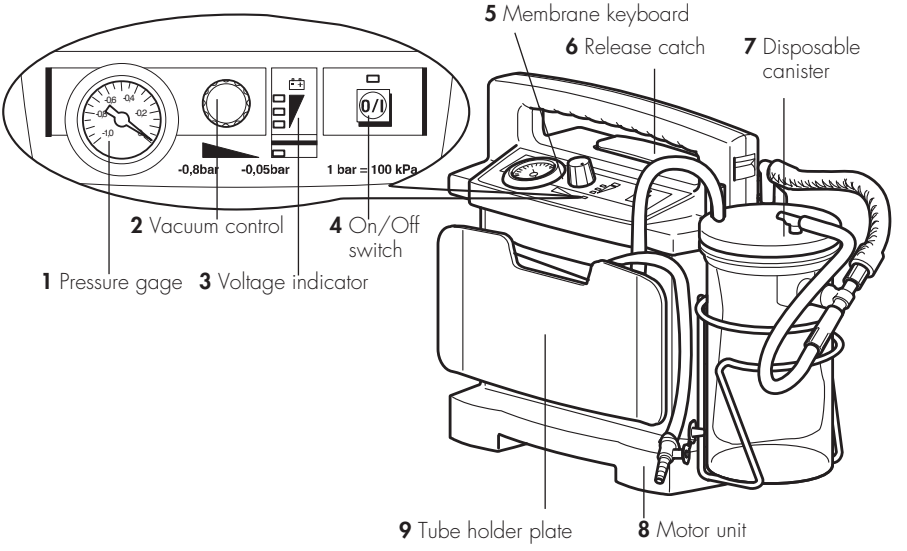
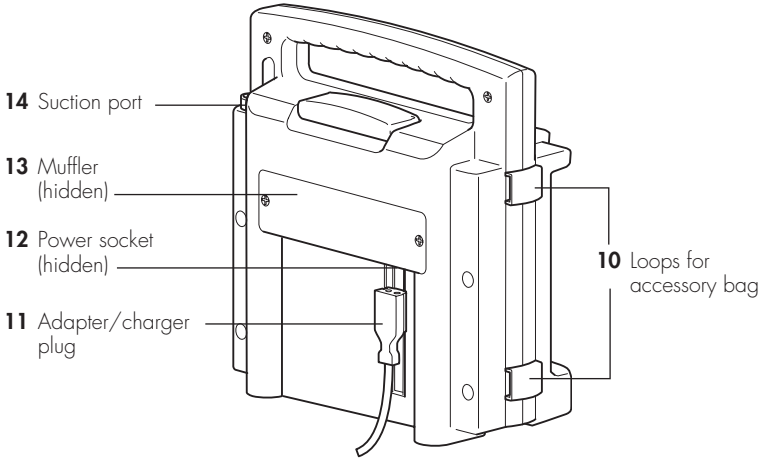
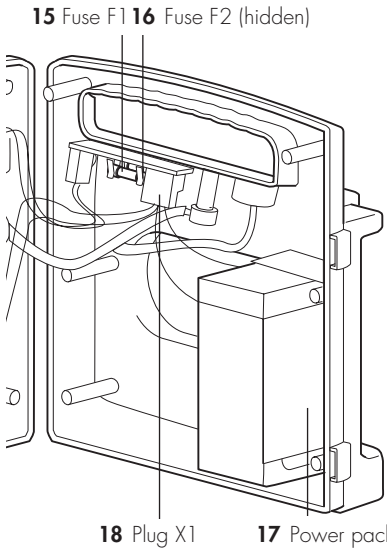
ACCUVAC Basic from front with disposable collection canister



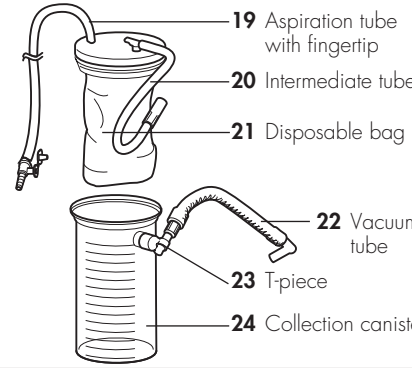
ACCUVAC Basic from rear without collection canister



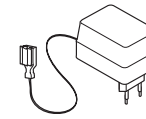
ACCUVAC Basic interior



Disposable collection canister



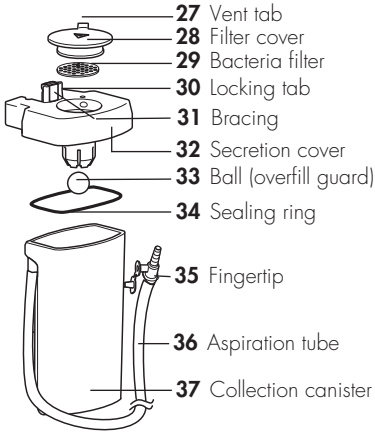
25 Holder



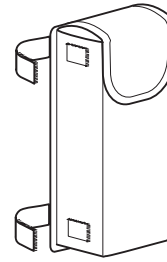
11 Adapter/charger plug

Accessories

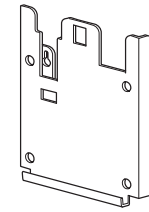
26 Re-usable collection canister WM 15269



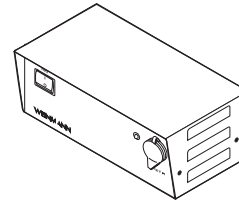
38 Holder set WM 15271



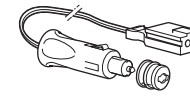
Accessory bag
WM 10655



Wall bracket
WM 15208



Mains / charger unit
WM 2645



Connection cable
WM 10650

1. Description

1.1 Purpose

ACCUVAC Basic is a mobile and portable electrically powered aspirator (suction pump).

It is used for:

- aspirating accumulations of blood, secretions and food from the oral cavity, the nose and throat region and the bronchial system;
- deflating vacuum matresses and inflatable splints.

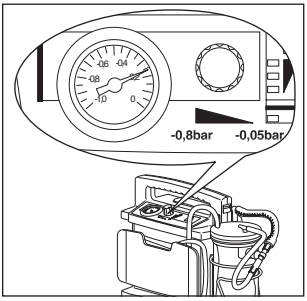
ACCUVAC Basic:

- can when used by a skilled operator eliminate obstruction of the respiratory tract and hence the risk of respiratory failure;
- cuts energy consumption by reducing power output on reaching the necessary vacuum;
- can optionally be powered by a rechargeable internal power pack;
- or by an external DC source supplying 12.0 - 13.8 V;
- is also suitable for use in wards.

ACCUVAC Basic must **not** be used:

- in medical rooms where potential equalization is necessary (e.g. heart surgery);
- in explosion-risk areas.

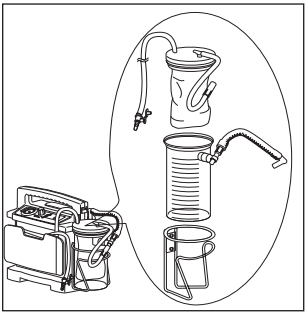
1.2 Function



An electrically operated diaphragm pump generates the vacuum necessary for aspiration.

Use the vacuum control **2** to set the desired vacuum, which is continuously variable between –0.05 bar and –0.8 bar. You can read off the set value on the pressure gage **1**.

The aspirated material passes via the aspiration tube **19** into the disposable collection canister **7**.



Disposable collection canister

The disposable collection canister **7** consists of the collection canister **24** itself, the disposable collection bag **21**, the aspiration tube with fingertip **19**, the intermediate tube **20**, the T-piece **23** and the vacuum tube **22**.

The disposable collection canister **7** is inserted in the holder **25** screwed on the side of the motor unit **8**.

The vacuum tube **22** of the disposable canister **24** is pushed onto the suction port **14** of the motor unit **8**.

The aspirated material passes through the aspiration tube **19** into the disposable collection bag **21**. The disposable collection bag is intended for once-only use. When it is full, you can remove it from the collection canister **24** and dispose of it complete with contents.

An overflow valve filter is integrated in the disposable collection bag **21**. This prevents secretions and liquid from finding their way into the motor unit **8** and passing into the environment via the muffler **13**.

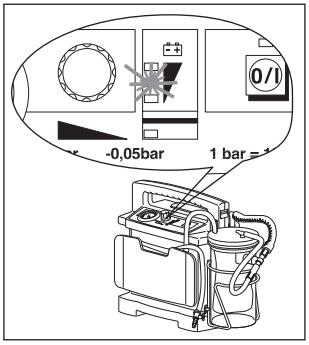
Power supply

Power for operating the appliance and charging the power pack can be drawn:

- from the built-in power pack **17**.
- from a 12-volt electrical cable system, using the connecting cable WM 10650 which is available as an accessory.
- from the mains and charger unit WM 2645 which is available as an accessory.

Important

The AC adapter/charger plug **11** supplied with the appliance is only designed for charging the power pack with the appliance switched off. It must not be used to operate the appliance itself, as this will overload it and cause it to overheat.



The voltage indicator **3** shows the charge status of the power pack.

Charging of the power pack starts automatically as soon as the appliance is switched off and connected to an external power supply (see "10. Technical Data" on page 37).

2. Safety

2.1 Special symbols on the appliance

Rating plate ACCUVAC Basic	
	Do not dispose of the unit in domestic waste!
	Protection class BF
	Protection class II, safety insulation
	Year of manufacture

2.2 Safety rules

For your own safety and the safety of your patients, and in accordance with the requirements of the 93/42/EEC, we would draw your attention to the following points:

- Please read these operating instructions carefully. They belong to the appliance and must be kept available at all times.
- Before working with ACCUVAC Basic, you must understand how to use it.
- Be sure to observe these operating instructions when working with ACCUVAC Basic.

- To avoid infection or contamination with bacteria please read section "5. Hygienic preparation" on page 19.
- ACCUVAC Basic may only be used by trained staff instructed in aspiration techniques. Incorrect use can cause serious bodily harm.
- ACCUVAC Basic must be used for the designated purpose only (see "1.1 Purpose" on page 2).
- Maintenance operations such as inspection and repair work must be performed by expert personnel or by the manufacturer Weinmann.
- Malfunctions and a lack of biocompatibility may result if third-party articles are used. Please bear in mind that in these cases any warranty entitlement and liability shall lapse where the accessories recommended in the instructions for use or original spare parts are not utilised.

- During the aspiration process, take particular care not to cause injuries to the patient's mouth or throat, e.g. to mucous membrane.

  The suction can be interrupted by briefly opening the fingertip, for example if the nozzle becomes firmly attached to the skin.
- Ensure sterile conditions during bronchial aspiration, and always use sterile catheters.

Important!

- The disposal of liquids such as blood and secretions and any items contaminated with such liquids should be carried out according to the national guidelines for hygiene.
- The ACCUVAC Basic should only be operated in the upright position, in order to prevent liquid from wetting the overflow valve filter integrated in the disposable collection bag **21**. If this happens, the overflow valve filter becomes impermeable to air and the disposable collection bag **21** has to be changed.

- The AC adapter/charger plug supplied is only for recharging the power pack when the appliance is switched off. It must not be used for operating the appliance itself, as this will overload it and cause it to overheat.
- To extend its service life, the power pack **17** must not be allowed to become fully discharged. If the red charge control LED **3** lights up, it is time to recharge immediately.
- To eliminate the risk of fully discharging the power pack, ACCUVAC Basic must never be stored in an uncharged condition. Always recharge the power pack first as described in "4.4 Charging ACCUVAC Basic" on page 16.
- Lead cell power packs discharge even during non-use. The rate of auto-discharge increases with rising temperature and amounts to about 20 % after three months' non-use at 20 °C. For this reason be sure to carry out functional checks at the specified intervals (see "6. Functional check" on page 23).
- Never sterilize the motor unit **8** in an autoclave.
- Never dip the motor unit **8** in disinfectant solution.
- We recommend keeping alternative means of aspiration ready in case of appliance failure.
- Do not use mobile telefones right beside ACCUVAC Basic.
  ACCUVAC Basic can however be operated without any problem in the back of an ambulance even if a mobile telephone is being used in the cab.

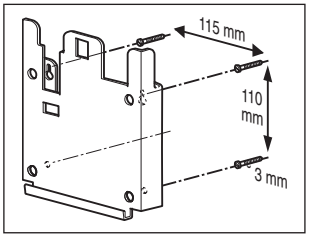
3. Assembly

ACCUVAC Basic is supplied ready for use.

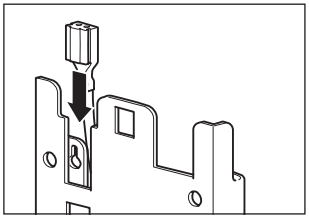
Important Before using ACCUVAC Basic for the first time, fully charge the power pack (see "4.4 Charging ACCUVAC Basic" on page 16).

3.1 Assembly with wall bracket

To mount ACCUVAC Basic on a wall, use wall bracket WM 15208, available as an accessory.



1. Find a suitable mounting location on an **even**, **vertical** surface. The outline of the ACCUVAC on the drilling template shows the space required.
2. Hold up the drilling template and level it with a spirit level.
3. Mark the required screw holes on the mounting location.
4. Drill the screw holes with a ∅ 3 mm drill.
5. Screw the wall bracket on with the screws supplied.

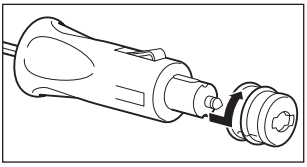


6. Push the appliance plug **11** of the connection cable or of the mains/charger unit into the guide rail of the wall bracket until it engages with the tongue.

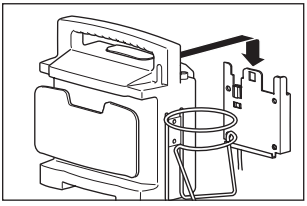
   Important: the mounting substrate must be sufficiently strong to hold the wall bracket and the ACCUVAC securely in accordance with CEN 1789 Medical Vehicles and their Equipment - Road Ambulances.

As an alternative to the AC adapter/charger plug supplied with the appliance, you can also use the connecting cable WM 10650 available as an accessory.

7. Insert the AC adapter/charger plug in a 230 V/ 50 Hz power socket, or if using the connecting cable, insert the vehicle plug into a 12 volt DC power source.

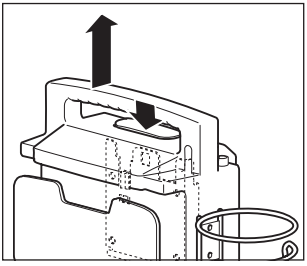


The vehicle plug is supplied complete with a red adapter ring. This is needed if you want to plug the vehicle plug into a cigarette lighter socket. To connect to the mains/charger unit WM 2645 (accessory) or a 12 volt vehicle socket, remove the red adapter ring.



8. Slide ACCUVAC Basic downwards into the wall bracket.

If ACCUVAC Basic appliance is switched off, it will automatically be charged up from the DC power source.

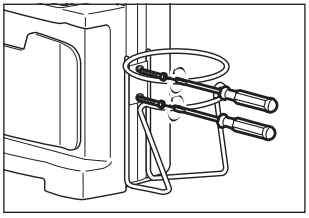


9. To remove the ACCUVAC Basic from the bracket ready for use, press the release catch **6** and lift ACCUVAC Basic out of the wall bracket.

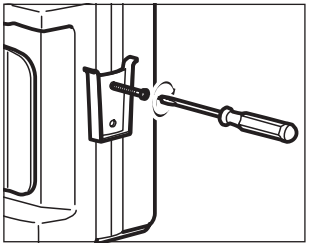
3.2 Fitting a re-usable collection canister

Instead of the disposable collection canister **7** supplied as standard, you can also fit a sterilizable re-usable collection canister **26** with holder **38**, available as an accessory. This conversion kit is available under order number WM 15261.

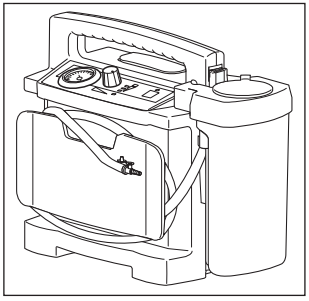
1. Remove the disposable collection canister **7** from its holder **25**.



2. Unscrew the holder **25** from the motor unit **8**.



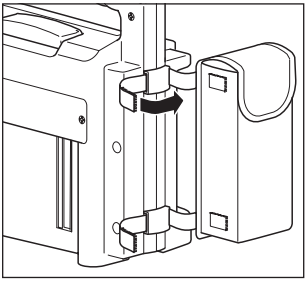
3. In the same place, screw on the holder **38** for the re-usable collection canister **26**.



4. Push the re-usable collection canister **26** into the holder **38**. Since the collection canister is directly connected to the suction port **14** of the motor unit **8**, there is no need for an intermediate tube.

3.3 Fitting an accessory bag

The accessory bag WM 10655 is available as an optional extra. It is used to hold aspiration catheters and other small parts. The accessory bag cannot be fitted at the same time as a rinsing glass (see "3.4 Fitting a rinsing glass" on page 11).



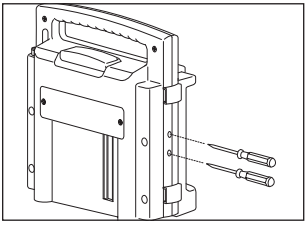
1. Use the velcro-type strips to attach the accessory bag to the loops on the motor unit.

3.4 Fitting a rinsing glass

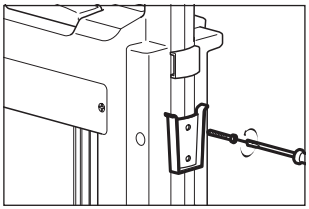
On the left side of the appliance it is possible to fit an additional collection canister in the form of a rinsing glass for holding a rinsing liquid, e.g. water.

The rinsing glass kit WM 15229 consists of:

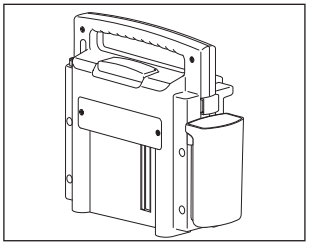
- Collection canister **37** WM 10631
- Holder set **38** WM 15271



1. Use a pointed object to pierce the two closed drill holes on the left of the appliance case.



2. Fix the holder **38** to the left side of the appliance.

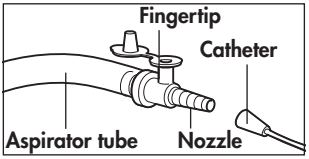


3. Push the rinsing glass into the holder.

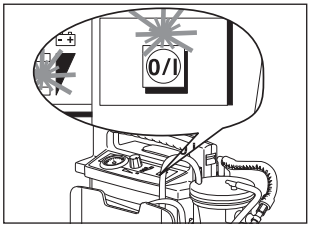
4. Operation

4.1 Preparing for aspiration

1. Unwind the aspiration tube **19** from the tube holder plate **9**.

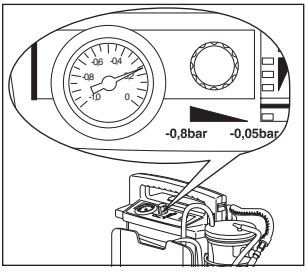


2. If necessary, adapt an aspiration catheter of suitable size for tracheal or nasopharyngeal aspiration to fit the nozzle.

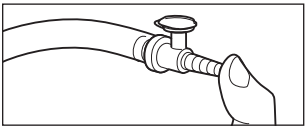


3. Press the button marked **O/I** . The lower green LED for the power indicator and the green LED for the **O/I** button lights up.

   Do not switch on ACCUVAC Basic while there is still a vacuum. This would cause the pump motor to draw too much current when switching on, which could actuate fuse F2 **16**.



4. Set the desired vacuum at the vacuum control **2**.



   For this purpose, close the fingertip with the stopper and the suction opening with your thumb. Wait until the pressure gage **1** shows a constant vacuum. Now use the vacuum control **2** to set the desired vacuum.

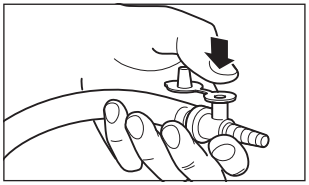
ACCUVAC Basic is now ready for operation, and you can start aspiration.

4.2 Aspiration

During the aspiration process, take care not to cause any injury to the patient's mouth and throat region, and especially to mucous membrane.

- The fingertip can be opened to interrupt suction briefly, e.g. if the nozzle is clinging to the skin.

  You can leave the fingertip open all the time and keep your thumb over it. To release the suction all you have to do is lift your thumb.

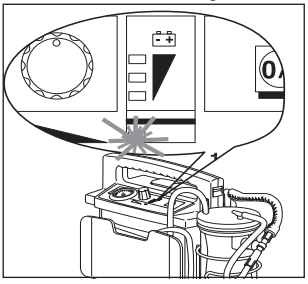


Important

Make sure that ACCUVAC Basic is always upright during operation so that the overflow valve filter integrated in the disposable collection bag **21** is not wetted by secretion. If the overflow valve filter is wetted with secretion, it becomes impermeable and the disposable collection bag **21** has to be replaced.

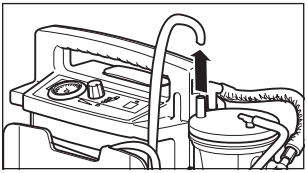
During aspiration, keep an eye on the fluid level in the disposable collection bag **21** and replace it with a new one in good time.

Important

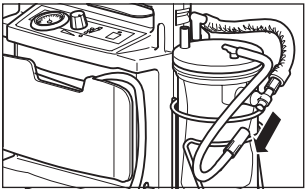


Be sure to check the power pack charge level at regular intervals during aspiration. If the red LED on the voltage indicator **3** lights up, aspiration should be continued with a second appliance. Using the appliance beyond this point can damage the power pack by discharging it completely, with the result that its full capacity will no longer be available.

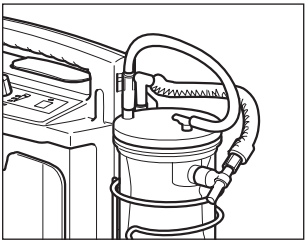
Disposal of disposable collection bag



1. Pull the end of the aspiration tube with fingertip **19** off the port.



2. Detach the intermediate tube **20** from the T-piece **23** of the collection canister **24**.



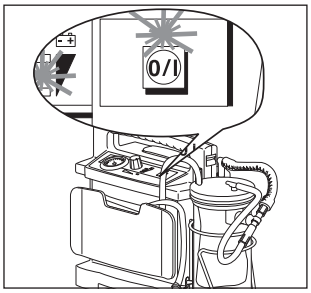
3. Push the free end of the intermediate tube **20** onto the connection for the aspiration tube. This closes the disposable collection bag **21** and reduces the risk of fluid escaping.

4. Remove the disposable collection bag **21** and dispose of it together with the aspiration tube **19**.

Important

Be sure to observe the relevant rules for disposal (see "2. Safety" on page 5).

4.3 After aspiration

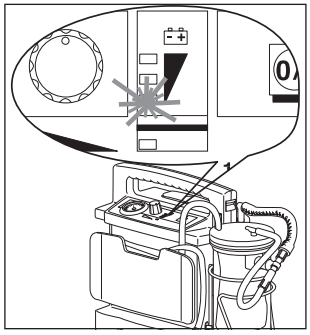


After aspiration:

1. Switch off ACCUVAC Basic by pressing the button marked **O/I**.

2. Fit a new disposable collection bag **21** (see " Disposal of disposable collection bag" on page 15).
3. Clean ACCUVAC Basic (see "5. Hygienic preparation" on page 19).

4.4 Charging ACCUVAC Basic

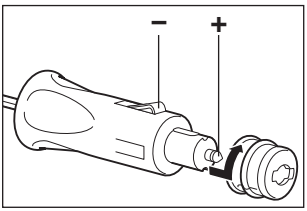


We recommend you to charge ACCUVAC Basic as soon as the yellow voltage indicator LED lights up. By doing so you will ensure that it operates for an adequate period next time it is used.

The power supply for charging must deliver 12.0 V – 13.8 V DC and at least 0.3 ampere. A full charge takes a maximum of 14 hours.

The following sources can be used for charging:

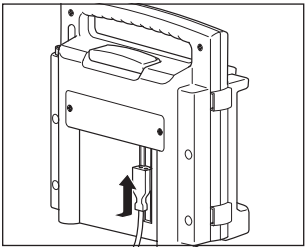
- The AC adapter/charger plug **11** supplied.
- The 12-volt vehicle electrical system with the aid of the accessory connecting cable WM 10650.
- The mains/charger unit WM 2645 available as an accessory.



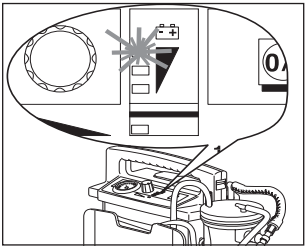
A red adapter ring is fitted to the vehicle connector. This is needed if you want to insert the vehicle connector in a cigarette lighter socket. To connect to the mains/charger unit WM 2645 (accessory) or a 12-volt vehicle socket, you must remove the red adapter ring.

Caution: Check the vehicle plug for correct polarity. Reversed polarity can damage ACCUVAC Basic.

Charging without wall bracket

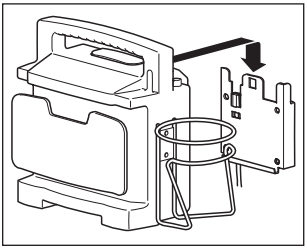


1. Switch off ACCUVAC Basic.
2. Place the plug **11** at the appliance end of the connecting cable in the guide slot at the rear of the appliance and push it up behind the cover plate.

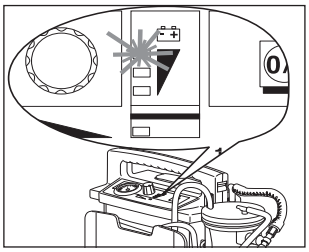


3. Switch on the power supply.
4. Charging starts as soon as you have switched on the power supply. When the top LED lights up, the power pack is approx. 75 % charged. Please charge the battery for another two 2 hours at least.

Charging with wall bracket



1. Switch off ACCUVAC Basic.
2. Insert ACCUVAC Basic in the wall bracket.



3. Charging starts as soon as you switch on the current. When the top LED lights up, the power pack is approx. 75 % charged. Please charge the battery for another two 2 hours at least.

Refresher charging

Regular refresher charging extends the service life of the power pack. Leave ACCUVAC Basic connected to the external power supply even after the power pack is fully charged. This cannot overcharge the power pack provided the charging voltage is kept within the range 12.0 – 13.8 V.

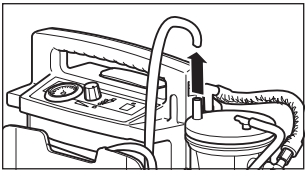
5. Hygienic preparation

Hygienic preparation of ACCUVAC Basic and the accessories used must be carried out daily during use and before every change of patient. Observe the instructions for the disinfectant used. We recommend GIGASEPT FF for immersion disinfection and TERRALIN for wipe disinfection.

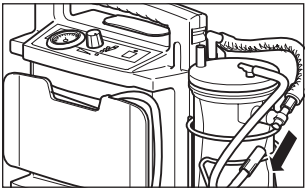
Never immerse the ACCUVAC Basic motor unit in disinfectant or other liquids. Always disinfect simply by wiping with disinfectant. Otherwise you may damage the device and thereby endanger users and patients (see "5.2 Cleaning, disinfecting and sterilizing" on page 20).

Be sure to carry out a functional check after every hygienic preparation (see "6.2 Performing the functional check" on page 25).

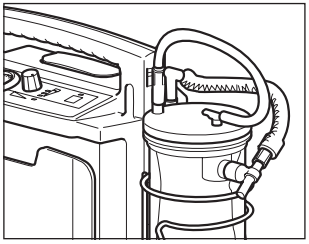
5.1 Preparations



1. Pull off the aspiration tube **19**.



2. Remove the intermediate tube **20** from the T-piece **23** of the collection canister **24**.

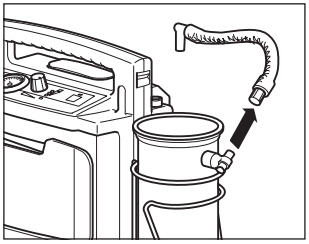


3. Push the free end of the intermediate tube **20** onto the aspiration tube port **19**. This closes the disposable collection bag **21** and thereby reduces the risk of secretion escaping.

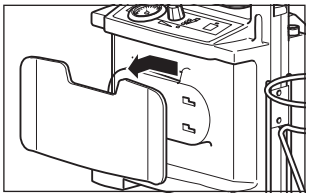
4. Remove the disposable collection bag **21** and dispose of it together with the aspiration tube **19**.

Important

Be sure to observe the relevant rules when disposing of the collection bag (see "2. Safety" on page 5).



5. Remove the vacuum tube **22**.



6. Lift the disposable canister **7** from its holder **25**.
7. Remove the tube holder plate **9** by pushing it to the left until it disengages and then pulling it towards you.

5.2 Cleaning, disinfecting and sterilizing

Hygienic preparation of the ACCUVAC Basic and the accessories used should be performed as described in the following table.

Observe the instructions regarding use of disinfectant. For immersion disinfection we recommend GIGASEPT FF and TERRALIN for wipe disinfection.

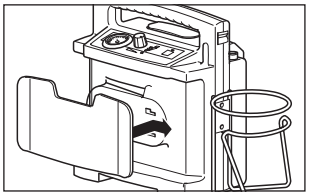
You are recommended to wear suitable gloves (e.g. household or disposable gloves) during disinfection procedures.

<table>
<tr><th colspan="2">Part</th><th>Cleaning</th><th>Disinfecting</th><th>Rinse in washing machine</th><th>Sterilization</th></tr>
<tr><td rowspan="3">Disposable collection canister</td><td>Collection canister</td><td rowspan="2">In warm water with mild household cleaner</td><td rowspan="2">Immerse in dilute solution [3]</td><td>Rinse at up to 95 °C</td><td>Hot steam sterilization up to 121 °C [4]</td></tr>
<tr><td>Vacuum tube</td><td colspan="2">Not permitted</td></tr>
<tr><td>Aspiration tube with fingertip</td><td colspan="4">Disposable item, re-use not permitted. Use new part for every patient</td></tr>
<tr><td rowspan="7">Re-usable collection canister</td><td>Collection canister</td><td rowspan="5">In warm water with mild household cleaner</td><td rowspan="5">Immerse in dilute solution [3]</td><td rowspan="5">Rinse at up to 95 °C</td><td rowspan="5">Hot steam sterilization up to 134 °C [5]</td></tr>
<tr><td>Secretion cover</td></tr>
<tr><td>Overfill ball</td></tr>
<tr><td>Filter cover</td></tr>
<tr><td>Aspiration tube</td></tr>
<tr><td>Filter [1]</td><td>In clear warm water [2]</td><td colspan="2">Not permitted [2]</td><td>Hot steam sterilization up to 134 °C [5]</td></tr>
<tr><td>Nozzle with fingertip</td><td colspan="4">Disposable item, re-use not permitted. Use new part for every patient.</td></tr>
<tr><td colspan="2">Motor unit</td><td>Wipe with damp cloth</td><td>Disinfectant wipe</td><td colspan="2">Not permitted</td></tr>
<tr><td colspan="2">Tube holder plate</td><td rowspan="2">In warm water with mild household cleaner</td><td rowspan="2">Immerse in dilute solution [3]</td><td rowspan="2">Rinse at up to 40 °C</td><td rowspan="2">Not permitted</td></tr>
<tr><td colspan="2">Accessory bag</td></tr>
</table>

(1) Always dry the filter before using it again. A damp filter reduces the pump's suction capacity.
(2) Do not use any surfactants or alcohol for cleaning, as they can adversely affect the hydrophobic properties of the filter.
(3) After disinfection, rinse the parts thoroughly with distilled water and let them dry.
(4) Sterilization with superheated steam at 121 °C in units complying with EN 285, residence time 20 minutes.
(5) Sterilization with superheated steam at 134 °C in units complying with EN 285, residence time 5 minutes.

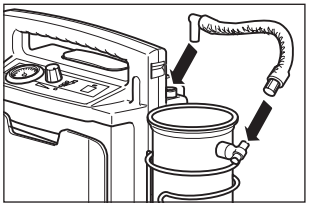
5.3 Reassembling the disposable collection canister

After cleaning, disinfection or sterilization, reassemble the parts as follows:



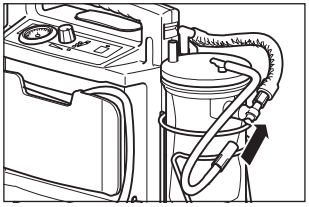
1. Refit tube holder plate **9** by sliding it to the right.

2. Insert the collection canister **7** in its holder **25**.

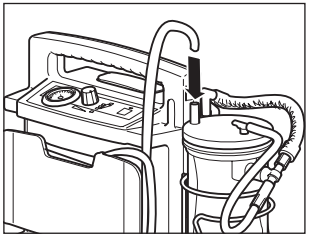


3. Use the vacuum tube **22** to connect the T-piece of the collection canister **24** to the suction port **14** on the motor unit **8**.

4. Insert a new disposable collection bag **21**.



5. Push the intermediate tube **20** onto the T-piece **23**.



6. Push a new aspiration tube **19** onto the connection port of the disposable collection bag **21**.

6. Functional check

If the functional check reveals defects or deviations from the specified values, ACCUVAC Basic must not be used again until the faults have been rectified.

We therefore recommend that you always keep a stock of the following:

- Disposable collection bag **21** WM 10732
- Aspiration tube with fingertip **19** WM 10733

6.1 Intervals

To ensure that a properly functioning ACCUVAC Basic is always available, it is essential to observe the following intervals.

Before every use

- Perform a functional check (see "6.2 Performing the functional check" on page 25).

After every use

- Clean, disinfect and/or sterilize the unit and its parts (see "5. Hygienic preparation" on page 19);
- Perform a functional check (see "6.2 Performing the functional check" on page 25).

Every 3 months

- Check the charge level of the power pack **17** by switching on ACCUVAC Basic and reading the voltage indicator **3**. If the top LED of the voltage indicator does not light up, the power pack should be recharged (see "4.4 Charging ACCUVAC Basic" on page 16).

At least every 6 months

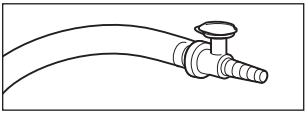
- Perform a functional check (see "6.2 Performing the functional check" on page 25).
- Make a visual inspection of the muffler for clogging. If it is clogged, fit a new muffler (see "7.3 Changing the muffler" on page 31).

After all repairs

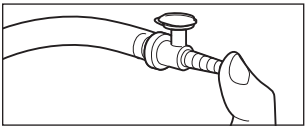
- Clean, disinfect and/or sterilize the unit and its parts (see "5. Hygienic preparation" on page 19);
- Perform a functional check (see "6.2 Performing the functional check" on page 25).

6.2 Performing the functional check

1. Check that all tubes and the individual parts of the disposable collection canister **7** are in perfect condition. Any damaged or worn parts must be replaced.
2. Check that all tubes are securely connected and the disposable collection bag **21** is firmly installed.
3. Switch on ACCUVAC Basic.
4. Check the charge level on the voltage indicator **3**. Always recharge the power pack without delay if the yellow LED on the voltage indicator lights up (see "4.4 Charging ACCUVAC Basic" on page 16).



5. Insert the stopper in the fingertip.



6. Use your thumb to hold the suction nozzle closed.
7. Switch on the aspirator and select the maximum vacuum of –0.8 bar by turning vacuum control **2** fully to the right. ACCUVAC Basic must reach this vacuum in not more than 20 seconds.

   If the aspirator takes more than 20 seconds to reach this vacuum, its suction capacity is reduced. Check for possible faults (see "7. Troubleshooting" on page 26).
8. Switch ACCUVAC Basic off again.

7. Troubleshooting

Fault	Cause	Remedy
Appliance does not start, O/I indicator and voltage indicator show ready for operation	Faulty pump	Have repairs carried out by factory or by expert personnel.
Appliance does not start, O/I indicator does not show ready for operation	Fuse F1 or F2 in appliance defective	Fit new fuse (7.2, page 29)
	Fuse in vehicle plug defective	Fit new fuse (7.2, page 29)
	Power pack fully discharged	Perform several charge/discharge cycles. If unsuccessful, fit new power pack (7.1, page 27)
	Incorrect polarity of vehicle power socket	Correct polarity and if necessary replace fuse F1 (7.2, page 29)
	Snap-in connection between circuit board and power pack not properly engaged	Make sure connection snaps in
Appliance does not switch on or off	Electronic fault	Have it repaired
Appliance does not reach maximum vacuum of –0.8 bar in 20 seconds, but voltage indicator shows ready for operation	Leak in suction side of appliance	Check that all tubes are firmly connected and disposable bag is securely installed
	Power pack not sufficiently charged	Charge power pack (4.4, page 16)
	Fault in pump	Have repairs carried out at factory or by expert personnel.
Not charging	AC adapter/charger plug defective	Have repairs carried out at factory or by expert personnel
	Inadequate external power supply	External power supply must be between 12.0 and 13.8 volt.
	Fuse F1 or F2 defective	Fit new fuse (7.2, page 29)
	Fuse in vehicle plug defective	Fit new fuse (7.2, page 29)
	Snap-in connection between circuit board and power pack not properly engaged	Make sure connection snaps in

Fault	Cause	Remedy
Power pack is not fully charged up despite charging for 14 hours (top LED in voltage indicator does not light up)	Charger does not meet specifications	Use AC adapter/charger plug WM 10750 or charger WM 2645 (accessory)
	Vehicle electrical system is not supplying 12.0 – 13.8 V	Check vehicle electrical system
	Power pack damaged by being fully discharged	Fit new power pack (7.1, page 27)
	Power pack at end of service life	
Top LED of voltage indicator lights up after charging, but pump does not run when powered by power pack	Internal connection faulty	Check internal connection between printed circuit board (X1) and power pack
	Fuse F2 defective	Fit new fuse (7.2, page 29)
Fuse F2 frequently blows	Pump is often switched on under vacuum conditions	Do not switch on pump under vacuum
	Pump defective	Have repair carried out at factory or by expert personnel

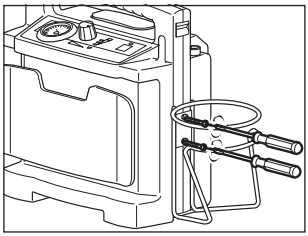
7.1 Power pack

ACCUVAC Basic is fitted with a high-grade lead cell power pack.

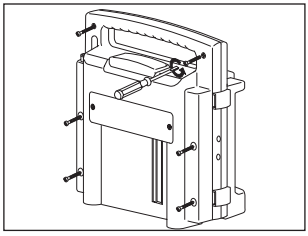
Changing power pack

Important Never touch the circuit board, as this can damage the electronic system.

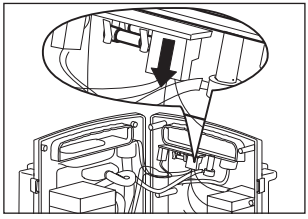
1. Switch off ACCUVAC Basic.
2. Disconnect the aspirator from the external power supply.
3. Remove collection canister **7** and any accessories.



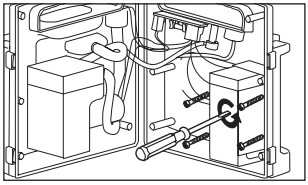
4. Unscrew the holder **25** for the disposable collection canister **7**.



5. Open the case by unscrewing the 6 cross-head screws. When opening the case, be careful not to damage the silicone sealing cord.



6. Carefully disconnect the power pack connector **18** (X1) from the circuit board.



7. Unscrew the power pack holder (4 cross-head screws).

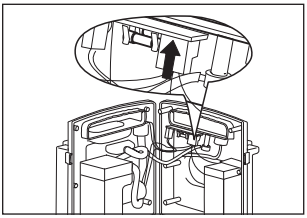
8. Detach both leads from the power pack **17**.
9. Remove the faulty power pack.

   Help protect the environment!

   Don't throw the old power pack in the garbage can – take it to a local collection point for environment-friendly disposal.
10. Attach the two cables to the connections on the new power pack: red to plus; black to minus.

If you accidentally reverse the connections, the electronic system will be protected by fuse **16** (F2), which will then have to be replaced.

11. Fit the new power pack with its holder, making sure you do not jam any cables.



12. Carefully push power pack connector **X1** onto the circuit board until it snaps into place.

13. Screw the case together again, making sure that the silicone sealing cord is correctly inserted and is not jammed or otherwise damaged.

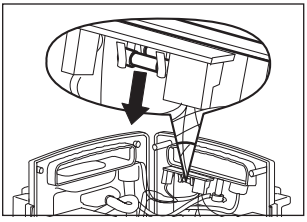
14. Perform a functional check (see "6.2 Performing the functional check" on page 25).

7.2 Changing fuses

Changing fuse F1 or F2

Important Never touch the circuit board, as this can damage the electronic system.

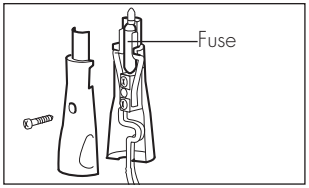
1. Unscrew the case of ACCUVAC Basic (see " Changing power pack" on page 27).

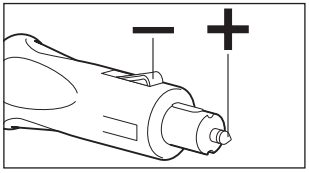


2. Remove the faulty fuse **15**/**16**. The fuses are identified on the circuit board.
3. Insert a new fuse. Always use approved fuses (see "10. Technical Data" on page 37).

4. Screw the case together again, making sure that the silicone sealing cord is correctly inserted and is not jammed or otherwise damaged.
5. Perform a functional check (see "6.2 Performing the functional check" on page 25).

Changing fuse in vehicle plug



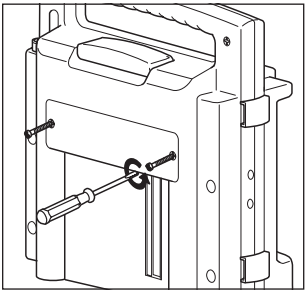


1. Use a screwdriver to open the vehicle plug.

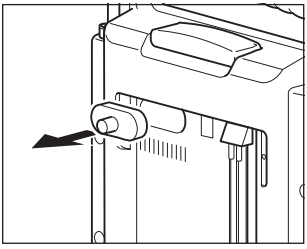
   Note:
   The central contact of the plug is the plus pole. The plus lead of the cable has either a square cross-section or colored markings.
   The outer contact of the plug is the minus pole. The minus lead of the cable is round and black.

   Caution: Check the vehicle plug for correct polarity. Reversed polarity can damage ACCUVAC Basic.
2. Change the faulty fuse. Use only approved fuses (see "10. Technical Data" on page 37).
3. Screw the vehicle plug together again.
4. Perform a functional check (see "6.2 Performing the functional check" on page 25).

7.3 Changing the muffler

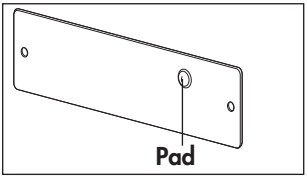


1. Use a screwdriver to unscrew the cover plate (2 cross-head screws).



2. Remove the old muffler **13**.

3. Insert a new muffler.



4. Refit the cover plate. Make sure that the pad stuck to the cover plate is pressing against the muffler.
5. Perform a functional check (see "6.2 Performing the functional check" on page 25).

8. Maintenance

8.1 Intervals

The ACCUVAC Basic requires no maintenance, but please observe the intervals specified for regular functional checks (see "6.1 Intervals" on page 23).

We recommend that you have any servicing, such as inspections and repair work, carried out by the manufacturer – Weinmann – or by expert personnel.

8.2 Disposal

Do not dispose of the unit with domestic waste. To dispose of the unit properly, please contact a licensed, certified electronic scrap disposal merchant. This address is available from your Environment Officer or from your local authority.

9. Product and accessories

9.1 Standard product

1. ACCUVAC Basic with disposable canister
   ACCUVAC Basic WM 10700
   consisting of:
   - Aspirator unit (disposable canister) WM 10710
   - AC adapter/charger plug, complete WM 10750
2. ACCUVAC Basic with re-usable canister
   ACCUVAC Basic WM 10709
   consisting of:
   - Aspirator unit (re-usable canister) WM 10726
   - AC adapter/charger plug, complete WM 10750
   - Bacteria filter WM 10675

9.2 Accessories

The following accessories are not part of the standard product and must be ordered separately:

1.	Mains/charger unit	WM 2645
2.	Connection cable	WM 10650
3.	Accessory bag	WM 10655
4.	Wall bracket incl. fixing kit	WM 15208
5.	Conversion kit to re-usable collection canister	WM 15261
	consisting of:	
	– Set, re-usable canister	WM 15269
	– Holder set	WM 15271
6.	Set, re-usable canister	WM 15269
	consisting of:	
	– Re-usable canister	WM 10630
	– Instructions for use	WM 16235
7.	Holder set for re-usable canister	WM 15271
	consisting of:	
	– Holder	WM 10640
	– Fixing elements	
8.	Set, rinsing glass	WM 15229
	consisting of:	
	– Collection canister	WM 10631
	– Holder set	WM 15271
9.	Aspiration catheter, sterile pack CH. 05, diam. 1.3 mm	WM 5154
	– Set I: 10 x WM 5154	WM 15311
	– Set II: 20 x WM 5154	WM 15312
	– Set III: 30 x WM 5154	WM 15313

10. Aspiration catheter, sterile pack CH. 06, diam. 2.0 mm, 50 cm long, pack of 2	WM 5155
– Set I: 10 x WM 5156	WM 15314
– Set II: 20 x WM 5156	WM 15315
– Set III: 30 x WM 5156	WM 15316
11. Aspiration catheter, sterile pack CH. 10, diam. 3.3 mm, 50 cm long, pack of 4	WM 5157
– Set I: 10 x WM 5158	WM 15317
– Set II: 20 x WM 5158	WM 15318
– Set III: 30 x WM 5158	WM 15319
12. Aspiration catheter, sterile pack CH. 12, diam. 4.0 mm	WM 5159
– Set I: 10 x WM 5159	WM 15296
– Set II: 20 x WM 5159	WM 15297
– Set III: 30 x WM 5159	WM 15298

9.3 Spare parts

1.	Disposable collection canister consisting of:	WM 10730
	– Collection canister	WM 10731
	– Disposable collection bag	WM 10732
	– T-piece	WM 10738
	– Aspiration tube with fingertip	WM 10733
	– Vacuum tube	WM 10740
2.	Holder set for disposable collection canister consisting of:	WM 15172
	– Holder	WM 10735
	– Fixing elements	
3.	Reset button set, green	WM 15397
4.	Tube holder plate, green	WM 10723
5.	Lead cell power pack	WM 10747
6.	Muffler	WM 10665
7.	Instructions for use	WM 16138
8.	Fuse for vehicle plug	WM 10673
9.	Fuse for external power supply (F1)	WM 2692
10.	Fuse for power pack (F2)	WM 2692
11.	Set I, disposable collection bags (10 x WM 10732)	WM 15226
12.	Set II, disposable collection bags (20 x WM 10732)	WM 15227
13.	Set III, disposable collection bags (50 x WM 10732)	WM 15228
14.	Set I, aspiration tube with fingertip (10 x WM 10733)	WM 15327
15.	Set II, aspiration tube with fingertip (20 x WM 10733)	WM 15328
16.	Set III, aspiration tube with fingertip (50 x WM 10733)	WM 15329

10. Technical Data

	ACCUVAC Basic
Appliance class MPG	II b
Dimensions WxHxD in mm	385x280x140
Weight	approx. 5.4 kg
Canister volume	900 ml
Suction capacity at 12 V with free flow	> 20 l/min
Max. vacuum at 12 V	0.8 bar (80 kPa)
Aspiration tube	diam. 5 mm, length 1800 mm
Overflow valve filter	at least 99.8 % for particle size 2.8 µm
Motor output	50 W
Rated voltage	12 V
Maximum current consumption	3.5 A
Temperature range – Operation – Charging – Storage	 –18 °C to +40 °C + 0 °C to +40 °C –40 °C to +70 °C
Electromagnetic compatibility: – Radio interference suppression – Radio interference resistance	 EN 60601-1-2 EN 55011 IEC 1000-4 Parts 2–5 & 11
Classification according to EN 60601-1: – Protection against electric shock: class II; with charger: class I – Degree of protection against electric shock: BF – Degree of protection against water: IPX 1 (drip-water)	
Classification according to EN ISO 10079-1: – high vacuum/high flow	

	ACCUVAC Basic
Norms complied with	EN 60601-1, EN ISO 10079-1, EN 1789
Vehicle plug fuse	8 A, DIN 72581, identification color white
Internal fuse F1 external power supply	4 A slow-acting, low breaking capacity G fuse links 5x20 mm, conforms to IEC 127
Internal fuse F2 power pack	4 A slow-acting, low breaking capacity G fuse links 5x20 mm, conforms to IEC 127
Power pack type	Lead cell, 3.4 Ah
Charging voltage	12.0 to 13.8 V⎓
Operating time after charging for 14 hours	30 min at maximum suction
Operating mode	S2 60 min
Service life of power pack	400 charge/discharge cycles in approx. 3 years
AC adapter/ charger	primary: 230 V/50 Hz secondary: 13.8 V⎓ / 0.3 A
Materials	
Disposable collection canister: – Collection canister: PC – Disposable collection bags, tubes: PVC – Nozzle with fingertip: PE	
Case	PC/ABS
Tube holder plate	ABS

CE 0197

e1 024103 From serial no. 10735/2004

10.1 Safe distances

The ACCUVAC Basic is intended for operation in an electromagnetic environment in which high-frequency interference variables are controlled. The customer or user of the ACCUVAC Basic can help avoid electromagnetic interference by maintaining the minimum safe distance between portable and mobile high-frequency telecommunication devices (transmitters) and the ACCUVAC Basic depending on the rated output of the transmitter as given below.

Recommended safe distances between portable or mobile HF telecommunication devices (e.g. mobile phones) and the ACCUVAC Basic			
Rated output of HF device in W	**Safe distance depending on transmission frequency in m**		
	150 kHz - 80 MHz d=(3,5/V1) x √P	**80 MHz - 800 MHz d=(3,5/V1) x √P**	**800 MHz – 2,5 GHz d=(3,5/V1) x √P**
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

11. Warranty

- Weinmann offers a warranty that the product, when used in accordance with requirements, will remain free from defects for a period of two years from date of purchase. For products whose durability is clearly indicated as less than two years, the warranty expires on the expiration date indicated on the packaging or in the user's manual.
- Claims against the warranty can be made only when accompanied by the sales receipt, which must show salesperson and date of purchase.
- We offer no warranty in the case of:
  - Disregard of usage instructions
  - Operating errors
  - Improper use or handling
  - Third-party intervention by non-authorized persons for the purpose of device repair
  - Acts of God, e.g., lightning strikes, etc.
  - Transport damage as a result of improper packaging of returned items
  - Lack of maintenance
  - Operational and normal wear and tear, which includes, for example, the following components.
    - Filter
    - Batteries / recheargable batteries
    - Articles for one-time usage, etc.
  - failure to use original spare parts.
- Weinmann is not liable for consequential harm caused by a defect if it is not based on intention or gross negligence. Weinmann is also not liable for minor physical injury to life or limb resulting from negligence.
- Weinmann reserves the right to decide whether to eliminate defects, to deliver a defect-free item or to reduce the purchase price by a reasonable amount.
- If Weinmann rejects a claim against the warranty, it assumes no expense for transport between customer and manufacturer.
- Implied warranty claims remain unaffected by these changes.

EEC-Letter of Conformity on Medical Devices

We, the manufacturer	Weinmann Geräte für Medizin GmbH+Co.KG Kronsaalsweg 40 · D – 22525 Hamburg
declare in sole responsibility the	Product Name: **Suction unit** Type/Model: **ACCUVAC Basic**
being in conformity with the respective regulations of the following guidelines:	Directive 93/42/EEC on Medical Devices Directive 95/54/EC Requirements concerning the suppression of radio interference produced by motor vehicles and their compenents
Classification:	II b
Standards used in particular:	EN 60601-1: 1990 + A1: 1993 + A2: 1995 EN 60601-1-2: 1993, EN ISO 10079-1:1996 EN 1789 : 2003

Hamburg, 24.11.1997
and amended on 19.12.2005

Dr. K.-A. Feldhahn
Executive Vice President
Chief Operating Officer

WEINMANN

01.2004 Alb

For decades Weinmann has been developing, producing and marketing medical devices for markets around the world. In cooperation with our partners we design economic health systems for diagnosis and therapy in Sleep Medicine, Home Mechanical Ventilation, Oxygen Medicine and Emergency Medicine.

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WEINMANN

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